

# EUROPEAN PATENT OFFICE

Patent Abstract of Japan

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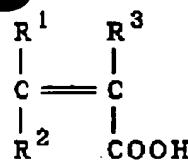
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APPLICANT : NOF CORP;

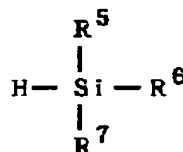
INVENTOR : ITO MASAYASU;

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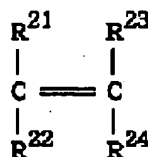
TITLE : PRODUCTION OF POLYMERIZABLE  
TRIORGANOSILYL UNSATURATED  
CARBOXYLATE



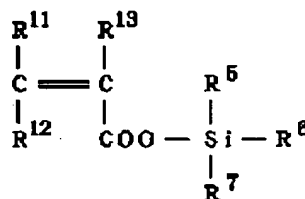
I



II



III



IV

ABSTRACT : PROBLEM TO BE SOLVED: To provide the subject high-purity compound without causing by-products in high yield by reacting an unsaturated carboxylic acid with a triorganosilane in the presence of a reducing double bond by using a dehydrogenating catalyst.

SOLUTION: An unsaturated carboxylic acid of formula I ( $R^1$  and  $R^2$  are each H, methyl or  $COOR^4$ ;  $R^4$  is H, an alkyl, an aryl, an aralkyl, etc.;  $R^3$  is H, methyl,  $CH_2COOR^4$ , etc.) is reacted with a triorganosilane of formula II ( $R^5$  to  $R^7$  are each an alkyl, a cycloalkyl, an aryl or an aralkyl) in the presence of a compound of formula III ( $R^{21}$  and  $R^{22}$  are each H, methyl, aryl, etc.;  $R^{23}$  is H, methyl, etc.;  $R^{24}$  is an alkyl, an alkenyl, an aryl, etc.), and a dehydrogenating catalyst at -20 to 250°C to give a compound of the formula ( $R^{11}$  and  $R^{12}$  are each H, methyl or  $COOR^{14}$ ;  $R^{14}$  is an alkyl, an aryl, a triorganosilyl, etc.;  $R^{13}$  is H, methyl,  $CH_2COOR^{14}$ , etc.). No triorganosilyl saturated carboxylate as an unfavorable by-product is formed by this method.

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